

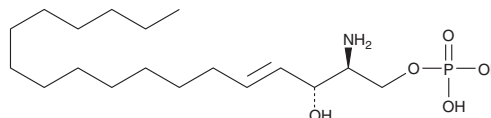
PRODUCT INFORMATION



Sphingosine-1-phosphate (d18:1)

Item No. 62570

CAS Registry No.: 26993-30-6
Formal Name: 2S-amino-1-(dihydrogen phosphate)-4E-octadecene-1,3R-diol
Synonyms: S1P (d18:1), Sphingosine-1-Phosphoric Acid
MF: C₁₈H₃₈NO₅P
FW: 379.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sphingosine-1-phosphate (S1P) (d18:1) is supplied as a crystalline solid. S1P (d18:1) is sparingly soluble in organic solvents. Aqueous solutions can be prepared by directly dissolving the crystalline solid in basic buffers. The solubility of S1P (d18:1) in 0.3 M NaOH is approximately 4 mg/ml, but it will precipitate at pH less than 7.5. The reconstituted material will be stable for 24 hours if stored at 4°C.

Description

S1P is a metabolite of membrane sphingolipids. S1P mobilizes calcium in Swiss 3T3 fibroblasts from internal stores *via* a mechanism independent of inositol lipid hydrolysis and arachidonic acid release.¹ This increase is dose dependent with a half-maximal effect at 2 μM.¹ Unrelated to its ability to mobilize calcium, S1P also induces phosphatidic acid release in 3T3 fibroblasts through activation of phospholipase D.²

References

1. Mattie, M., Brooker, G., and Spiegel, S. Sphingosine-1-phosphate, a putative second messenger, mobilizes calcium from internal stores *via* an inositol trisphosphate-independent pathway. *J. Biol. Chem.* **269**, 3181-3188 (1994).
2. Desai, N.N., Zhang, H., Olivera, A., *et al.* Sphingosine-1-phosphate, a metabolite of sphingosine, increases phosphatidic acid levels by phospholipase D activation. *J. Biol. Chem.* **267**, 23122-23128 (1992).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent *via* email to your institution.

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